



# Russia, Geopolitics and Fisheries Management: a Tale of Two Seas

*Anne-Kristin Jørgensen* | ORCID: 0009-0007-1232-0836

Fridtjof Nansen Institute, Norway

Corresponding Author

*akjorgensen@fni.no*

*Laurentiu Plesca*

Doctoral School of Political Sciences and Romanian Centre for Russian  
Studies, University of Bucharest, Romania

*Radu Carp*

Faculty of Political Science and Romanian Centre for Russian Studies,  
University of Bucharest, Romania

*Geir Hønneland*

Fridtjof Nansen Institute, Norway

Received 6 September 2024 | Accepted 6 February 2025 |

Published online 6 May 2025

## Abstract

Coastal states have a duty to cooperate on the management of transboundary (shared) fish stocks in order to prevent overexploitation of such stocks. In this article, we examine the history and current state of fisheries management in two European seas, the Barents Sea and the Black Sea, to find out how and why these fishing regions have ended up with widely contrasting management outcomes. In the Barents Sea, the coastal states of Norway and Russia have jointly managed the fisheries for half a century with good results in terms of stock conservation. By contrast, the riparian states in the Black Sea – Bulgaria, Georgia, Romania, Russia, Turkey, and Ukraine – have struggled to coordinate their management efforts, and the stocks are heavily overfished. We find that several factors help explain these differences. In both cases, the geopolitical

context has been important. Geopolitical considerations have induced Norway and Russia/the Soviet Union to seek joint solutions for the Barents Sea fisheries, but in the Black Sea geopolitical rivalry has hampered cooperation. Russia, in particular, has been sceptical of joint management arrangements. In addition, Norway and Russia both have high stakes in the Barents Sea fisheries, and they share a long history of cooperation within multilateral fisheries institutions in the North-East Atlantic. The riparian states in the Black Sea have very unequal stakes in the fisheries, and there are considerable differences in their approaches to fisheries management. This is particularly so between Turkey – the biggest player – and the other riparian states.

### Keywords

Barents Sea fisheries – Black Sea fisheries – Russia – regional cooperation – geopolitical rivalry – overfishing – transboundary stocks

## 1 Introduction

Once, the oceans and their resources were held to be inexhaustible. The emergence of industrial-scale fisheries in the 20th century put that notion to rest, and today overfishing is considered the biggest threat to marine ecosystems and biodiversity.<sup>1</sup> As fish do not respect borders, international cooperation is essential to put the world's fisheries on a sustainable footing. In recent decades, the number of regional and sub-regional fisheries management organisations and arrangements (RFMOs and RFMAs) has steadily increased. Some have been successful, others less so, and in some regions, cooperation has broken down or failed to emerge at all. Increased geopolitical tension in recent years has put international fisheries management under pressure, not least where Russia is involved.

In this article, we look into the developments in two European fishing regions – the Barents Sea and the Black Sea – where Russia shares commercial fish stocks with neighbouring states. In the Barents Sea, Russia and Norway have jointly managed the fish stocks since 1976 – and quite successfully so. In the Black Sea, Russia and the other five riparian states have, by contrast, mostly

---

1 IPBES. "Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services," Zenodo, May 4, 2019. <https://doi.org/10.5281/zenodo.6417333>.

failed to coordinate their management efforts, and the stocks are heavily overfished. The article investigates the drivers behind these divergent outcomes, with special attention to geopolitical factors and Russia's role.

In the Barents Sea, Russia has readily cooperated with its neighbour to conserve the shared stocks, but in the Black Sea, Russia has taken a more sceptical – and in recent years, blatantly uncooperative – stance. Taking that as our point of departure, we pose the following research questions:

- Why has regional fisheries cooperation succeeded in the Barents Sea but not in the Black Sea?
- To what extent have geopolitical considerations influenced these outcomes?
- How have Russian policies affected the outcome in the two cases?
- What accounts for Russia's different behaviour in the two regions?

The overarching objective of the article is to shed light on how the 'return of geopolitics' may affect the international community's ability to tackle natural resource and environmental challenges. At the same time, fisheries management collaboration in these regions is an interesting lens through which to study Russian (geo-)politics towards EU and NATO members in a non-securitised issue area.<sup>2</sup>

Methodologically, the study builds on document analysis. The main primary sources are protocols and minutes from international meetings, and declarations and publications from national authorities in the relevant coastal states. Secondary sources are academic publications as well as grey literature identified in searches in academic databases and through general internet searches. Google Scholar and the Web of Science have been important for identifying relevant publications. Searches have started with general search terms such as "Black Sea" + "fisheries" and then become more specific as it has become clear which questions need further illumination. When these publications have pointed us to new sources, snowballing has been used. Since far less has been written about fisheries management in the Black Sea than in the Barents Sea, and information is less readily available, searches for new information have concentrated on the Black Sea.

---

2 The article is one outcome of a comparative research project on Russian geopolitics in the Black Sea and Arctic regions. The project was carried out by the University of Bucharest and the Norwegian Fridtjof Nansen Institute in 2021–23 with funding from EEA (European Economic Area) grants 2014–2021.

## 2 Fisheries Management and International Cooperation

The first international regional fisheries bodies were set up in the 1950s in response to the expansion of offshore fisheries after World War II, but these institutions were too weak to stem the tide of overfishing.<sup>3</sup> To prevent a global tragedy of the commons, the world's states set out to negotiate a new legal framework for the use of the sea. Negotiations under the third UN Conference on the Law of the Sea began in 1973 and ended in 1982 with the adoption of the UN Convention on the Law of the Sea (UNCLOS).<sup>4</sup> UNCLOS gave coastal states sovereign rights over living resources within 200 nautical miles of their shores – the so-called exclusive economic zone (EEZ).<sup>5</sup>

Under UNCLOS, coastal states have a duty to conserve the stocks in their EEZs,<sup>6</sup> and they must seek to cooperate with neighbouring states on the management of shared (transboundary) stocks; that is, stocks which span the EEZs of two or more states.<sup>7</sup> UNCLOS does not prescribe concrete conservation measures, but according to its provisions, coastal states shall aim to maintain fish stocks at levels capable of producing *maximum sustainable yield* (MSY) – that is, the largest annual harvest a fish stock can produce in the long term.<sup>8</sup>

Since 1982, the normative framework for fisheries management has been strengthened through the adoption of new binding and non-binding instruments, including the UN Fish Stocks Agreement (UNFSA),<sup>9</sup> and the FAO Code of Conduct for Responsible Fisheries,<sup>10</sup> both adopted in 1995. UNFSA strengthened the duty to cooperate; coastal states and states fishing on the high seas shall pursue cooperation either directly or through RFMO/AS.<sup>11</sup> UNFSA also established the precautionary approach as a legal norm.<sup>12</sup> The Code of Conduct focused on, among other things, the social and environmental impacts of fishing. Since the turn of the century, further developments in the normative

3 S. Gezelius and R. Raakjær, eds., *Making Fisheries Management Work* (Springer, 2008).

4 United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 UNTS 3.

5 UNCLOS, art. 56.

6 UNCLOS, art. 61.

7 UNCLOS, art. 63.

8 UNCLOS, art. 61.

9 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Aug. 4 1995, 2167 UNTS 3.

10 FAO, Code of Conduct for Responsible Fisheries (FAO, 1995). <https://www.fao.org/4/v9878e/v9878e00.htm>.

11 UNFSA, art. 8–10.

12 UNFSA, art. 6.

framework have changed the way the term ‘sustainability’ is interpreted in the context of fisheries. To comply with current international norms, fisheries managers must not only ensure that target stocks are sustainably managed but also take the environmental, social and economic aspects of sustainability into account – including how the fishery affects ecosystems and marine biodiversity and the well-being of fishers and local communities.<sup>13</sup>

### 3 The Barents Sea Case

#### 3.1 *Background*

The Barents Sea is located on Europe’s northern periphery, with Norway and Russia to the south. To the north-west, the sea is confined by the Norwegian Svalbard archipelago, to the north by the ice-covered Arctic Ocean, and to the north-east and east by the Russian archipelagoes Franz Josef Land and Novaya Zemlya. To the west, however, the Barents Sea opens onto the Northern Atlantic. Only here, in the High North, does the Russian navy enjoy unrestricted access to the Atlantic Ocean. Historically, relations between the two coastal states have been distant, but friendly. They have never been at war with one another, and Norway has never been part of Russia’s sphere of influence.

The Barents Sea is home to fish stocks of high commercial value, like cod, haddock, saithe, Greenland halibut, and redfish. The cod stock is the world’s largest, and cod is the most important species in commercial terms. Capelin, a small forage fish, is a key source of food for cod. This is taken into account when capelin quotas are set.<sup>14</sup>

Due to its peripheral location, the Barents Sea has a low level of pollution. Fishing has had more of an impact on the stocks and the ecosystem, but the most acute threat to the marine ecosystem is climate change. Ocean warming has made some stocks, like cod, more abundant, whereas the opposite effect has been noted for stocks with a low tolerance of high temperatures, like Greenland halibut.<sup>15</sup>

13 See for instance J. Rice, “Evolution of International Commitments for Fisheries Sustainability,” *ICES Journal of Marine Science* 71, no. 2 (2014): 157–165. <https://doi.org/10.1093/icesjms/fst078>.

14 See J.E. Stiansen et al., “Northern Seas – Climate and Biology”, in *Marine Resources, Climate Change and International Management Regimes*, eds. O. Stokke, A. Østhagen and A. Raspotnik (Bloomsbury Academic, 2022). <https://library.oapen.org/handle/20.500.12657/58864>.

15 M. Fossheim et al., “Recent Warming Leads to a Rapid Borealization of Fish Communities in the Arctic,” *Nature Climate Change* 5 (2015): 673–678. <https://doi.org/10.1038/NCLIMATE2647>.

Norway and Russia account for more than 85 per cent of the Barents Sea catches. The remainder is taken by EU countries, Great Britain, Iceland, Greenland, and the Faroe Islands. Catch volumes have exceeded one million tonnes in recent years, with a first-hand value of about two billion euros.<sup>16</sup> The fisheries make a significant contribution to the economy of Norway and Northwestern Russia and form the backbone of many coastal communities.

The Norwegian-Russian fisheries management regime has obtained good results and proven remarkably resilient to external stressors. However, the war in Ukraine has severely strained the relations between Norway and Russia and made cooperation more challenging (see section 3.5).

### 3.2 *Fisheries Management in the Pre-EEZ Era: Cooperation in the North-East Atlantic*

The Barents Sea forms part of the North-East Atlantic (NEA), one of the world's most productive fishing areas. In 1959, 14 coastal states set up the North-East Atlantic Fisheries Commission (NEAFC) to adopt technical regulations for the NEA fisheries.<sup>17</sup> NEAFC received scientific advice from the International Council for the Exploration of the Seas (ICES) which was founded in 1902 as a forum for research on fish stocks in the Northern Atlantic. Norway and the Soviet Union were members of both organisations and also cooperated bilaterally on research into the Barents Sea stocks.<sup>18</sup>

In the 1960s, several stocks in the NEA began to show signs of decline. To reduce the fishing pressure, ICES and NEAFC worked out a system for quota-based management, but NEAFC struggled to get all its members on board. When the organisation set the first quotas (or TACs – *total allowable catch*) for cod in the Barents Sea, the EEZ principle was about to gain international recognition and Norway and the Soviet Union were taking the first steps towards a bilateral management regime.<sup>19</sup>

With the introduction of EEZs, responsibility for the management of most stocks in the NEA passed to the coastal states. Transboundary stocks were managed by bi- and multilateral commissions, among them the Norwegian-Soviet Fisheries Commission (JNSFC).<sup>20</sup> ICES provided scientific advice to these new bodies and spearheaded the introduction of new management methods and

16 ICES, Arctic Fisheries Working Group (AFWG). *ICES Scientific Reports* (December 13, 2021). <https://doi.org/10.17895/ices.pub.8196>.

17 North-East Atlantic Fisheries Convention art. 3, Jan. 4. 1959, 1285 UNTS 129.

18 G. Hønneland, *Making Fisheries Agreements Work: Post-Agreement Bargaining in the Barents Sea* (Edward Elgar, 2012).

19 Hønneland, *Making Fisheries Agreements Work*, 5–6.

20 Hønneland, *Making Fisheries Agreements Work*, 5–6.

principles. NEAFC was reestablished as an RFMO responsible for stocks in high seas areas outside the EEZs.<sup>21</sup>

### 3.3 *The Norwegian-Soviet Fisheries Management Regime: Cooperation and Conflict*

Although they belonged to opposite Cold War camps, Norway and the Soviet Union had a common interest in conserving the valuable stocks in the Barents Sea and preserving stability in this hyper-militarised region. Thus, the regime was designed to prevent the spill-over of fishery conflicts into more sensitive issue areas, and mechanisms were adopted to insulate the cooperation from fallout from disputes external to the regime – notably jurisdictional ones.<sup>22</sup>

JNSFC was established in a bilateral fisheries agreement adopted in 1975.<sup>23</sup> When the commission met for the first time in 1976, several difficult issues had already been settled. First and foremost, the parties had agreed, as proposed by the Soviet Union, to share the cod and haddock stocks on a 50/50 basis. The power differential between the two states probably contributed to this outcome. Norway had a stronger catch record and initially suggested a 70/30 allocation key in its favour.<sup>24</sup> The sharing agreement was never formalised in writing, but both parties continued to respect it, thus eliminating the need for revisiting the conflict-prone allocation issue.<sup>25</sup>

The same year, the parties agreed that they should have access to fish in each other's waters. In the Barents Sea, the main nursing grounds for juvenile fish are in the east, whereas large, mature fish tend to congregate in the west. Mutual access was vital to the Soviet Union, but Norway also benefitted: the arrangement eased the pressure on undersized fish and ensured that both parties could optimise their fishing patterns.<sup>26</sup> In 1976, mutual access was formalised in a written agreement<sup>27</sup> which also called for the harmonisation of

21 T. Bjørndal, "Overview, Roles and Performance of the North East Atlantic Fisheries Commission (NEAFC)," *Marine Policy* 33, no. 4 (2009): 685–697.

22 O. Stokke, "Arctic Geopolitics, Climate Change, and Resilient Fisheries Management," *Ocean Yearbook* 36 (2022): 440–41; 445–49.

23 Agreement on co-operation in the fishing industry, Apr. 11, 1975, 983 UNTS 3.

24 Catch record was the main criterion used to determine the allocation key. Stokke, "Arctic Geopolitics," 446–47.

25 Stokke, "Arctic Geopolitics," 447, 463; Hønneland, *Making Fisheries Agreements Work*, 51.

26 Stokke, "Arctic Geopolitics," 446.

27 Agreement concerning mutual relations in the field of fisheries, Oct. 15, 1976, 1157 UNTS 139.

national fishing regulations. This reflected a Soviet concern that Norway would impose stricter regulations in the (predominantly Soviet) trawl fishery.<sup>28</sup>

However, the two states were unable to reach agreement on the boundary between their EEZs. To accommodate the fisheries and prevent regulatory chaos in the disputed area, they negotiated a temporary solution – the “Grey Zone” agreement, adopted in 1978.<sup>29</sup> In the Grey Zone, the parties’ vessels operated under the rules of their flag state. Each party controlled its own vessels, as well as any third-party vessels it had licenced to fish in its waters. The arrangement remained in place until 2010, when Norway and Russia signed an agreement to establish a permanent delimitation line.<sup>30</sup>

Another jurisdictional dispute concerned the legal status of the waters outside Svalbard, where both states had a long history of harvesting. Svalbard came under Norwegian sovereignty with the 1920 Svalbard Treaty.<sup>31</sup> After the EEZ principle was adopted, Norway held that it had the right to an EEZ around Svalbard. To avoid conflicts with signatory states that did not share this view, Norway instead declared a non-discriminatory fisheries protection zone (FPZ) around the islands in 1977. The Soviet Union issued a protest, claiming that Norway had no right to act unilaterally in the matter. Still, the parties found a *modus vivendi*, which according to some Russian observers, was based on a tacit understanding: the Soviet Union accepted Norway’s regulatory activities, as long as sanctions against Soviet transgressors were left to Soviet authorities. Until the mid-1990s, Norway practiced lenient enforcement in the FPZ: rule-breakers only received a warning, regardless of their citizenship and the nature of the transgression.<sup>32</sup>

By the early 1980s, the cooperation had settled into a regular pattern. In autumn every year, JNSFC met to negotiate TACs and other regulations for the coming fishing year.<sup>33</sup> As Norway had a large coastal fleet and the Soviet Union had mainly trawlers, reaching consensus was not always easy. Norway pushed

28 A.K. Jørgensen, “Stock Shifts and Regime Resilience in the Barents Sea,” in *Marine Resources*, eds. Stokke et al., 156.

29 Agreement on a Temporary Practical Arrangement for Fishing in an Adjacent Area in the Barents Sea, Jan. 11, 1978. The Grey Zone (formally “the adjacent area”) only partly overlapped with the disputed area. This was to prevent any prejudicial effects on the dispute.

30 Treaty between the Russian Federation and the Kingdom of Norway concerning maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean, Sept. 15, 2010, 2791 UNTS 3.

31 Treaty concerning the Archipelago of Spitsbergen, Feb. 9, 1920, 2 LNTS 7.

32 A. Østhagen et al., “The Svalbard Fisheries Protection Zone: How Russia and Norway Manage an Arctic Dispute,” *Arctic and North* 40 (2020): 152–54. [https://www.arcticandnorth.ru/upload/iblock/ece/150\\_168.pdf](https://www.arcticandnorth.ru/upload/iblock/ece/150_168.pdf).

33 Hønneland, *Making Fisheries Agreements Work*, 52–53.



for stricter mesh size and fish size regulations in the trawl fishery while the Soviet Union argued that reducing TACs was more important. However, conflict avoidance remained the name of the game. Decision-making procedures geared towards compromise ensured that the negotiations always ended in agreement.<sup>34</sup>

The quality of fisheries management in the Barents Sea improved after the establishment of the regime, but the parties' divergent views on regulations made JNSFC prone to unsustainable compromises.<sup>35</sup> The commission was finally shocked into action in the late 1980s when scientists warned of an imminent collapse of the cod stock. In 1989, the TAC for cod was set at a record-low level, below ICES's advice. As the Soviet Union began to collapse, the stock began to recover.<sup>36</sup>

### 3.4 *Post-Soviet Developments: New Problems, New Solutions*

The end of the Cold War enabled Norway and Russia to expand the fisheries cooperation in both scope and depth. The trigger of this development was the discovery, in 1992, that the Russian fishing fleet had vastly overfished its quotas. Responding to market incentives, Russian industry actors had switched to an export-oriented strategy, and many vessels now landed their catches in Norway. As Russian control and enforcement agencies could not cross-check the vessels' catch reports with port-delivery data, fishing companies could misreport their catches with impunity.<sup>37</sup>

JNRFC (the Joint Norwegian-Russian Fisheries Commission) set up a working group to consider direct collaboration between the two states' fisheries control agencies. In 1993, the parties began to exchange data on landings and arrange joint seminars for enforcement personnel.<sup>38</sup> The working group was turned into a Permanent Committee for management and control issues, and JNRFC set up additional expert groups as the need arose. Now that a broad array of tasks could be addressed at the expert level, cooperation became more efficient. Many new measures were adopted, from sorting grids to reduce bycatch in trawl fisheries, to satellite tracking of vessels in order to counter illegal, unreported, and unregulated (IUU) fishing.<sup>39</sup>

34 Jørgensen, "Stock Shifts and Regime Resilience," 157, 163.

35 Jørgensen, "Stock Shifts and Regime Resilience," 157, 167.

36 Hønneland, *Making Fisheries Agreements Work*, 53.

37 O. Stokke, "External Shocks, Resilience and Barents Sea Fisher Compliance," in *Marine Resources*, eds. Stokke et al., 179–196.

38 Hønneland, *Making Fisheries Agreements Work*, 61–62.

39 Hønneland, *Making Fisheries Agreements Work*, 65–68; 82–91.

In JNRFC, the Norwegian party drove most of the new initiatives. In Norway, sustainability issues had moved to the forefront – but in Russia, economic concerns now took precedence over environmental ones, and governance capacity in the fisheries sector was weakened by budget cuts and corruption. In the late 1990s, relations between the parties began to cool. Many Russians had come to doubt the West's good intentions, and some saw the new management measures as a Norwegian strategy to weaken Russia's fishing industry.<sup>40</sup> The nadir was reached at JNRFC's 1999 session. ICES recommended drastic cuts in the cod quota, but Russian industry actors – now dominant in the Russian delegation – claimed that Russia did not have “a single fish” to give away. To prevent the negotiations from collapsing, Norway agreed to set the TAC for cod almost four times above ICES's advice.<sup>41</sup>

Still, the regime was nested in a system where ICES set the standard for fisheries management. At the time, ICES was introducing the precautionary approach in the NEA, and JNRFC adopted the new approach seemingly as a matter of routine. Thus, at the session in 1999, the parties also made a commitment to rebuild the cod stock and reduce fishing mortality to the precautionary level.<sup>42</sup>

### 3.5 *Developments in the 21st Century: Long Day's Journey into Night*

In the early 2000s, there was a change of personnel on the Russian side. The collaborative climate in JNRFC improved, and the parties began to apply the precautionary approach in practice. Long-term management plans were adopted for the cod and haddock stocks, and concrete harvest control rules (HCR) ensured that TACs would be set “more by calculation than by negotiation”.<sup>43</sup> By tying themselves to the mast in this way, the parties became less vulnerable to stakeholder pressure for high quotas.

Again, Norway was the main proponent of the new management tools. In Russia, many saw the HCRs as overly cautious.<sup>44</sup> Soviet fisheries scientists had argued that fishing had a modest effect on the stocks compared to environmental factors, and some Russian scientists still held that view.<sup>45</sup> JNRFC has

40 Jørgensen, “Stock Shifts and Regime Resilience,” 168.

41 Hønneland, *Making Fisheries Agreements Work*, 71, 86.

42 Hønneland, *Making Fisheries Agreements Work*, 69–71.

43 O. Stokke, “Comparisons and Conclusions,” in *Marine Resources*, eds. Stokke et al., 190.

44 M. Hammer and A. Hoel, “The Development of Scientific Cooperation under the Norway-Russia Fisheries Regime in the Barents Sea,” *Arctic Review on Law and Politics* 3, no. 2 (2012): 266. <https://doi.org/10.23865/arctic.v3.36>.

45 Hønneland, *Making Fisheries Agreements Work*, 77–81.

since made several adjustments in the HCRs to increase the room of manoeuvre, but every new version has been reviewed by ICES to ensure its consistency with the precautionary approach.

The decade up to 2010 was a productive one for JNRFRC, but progress on management was tempered by conflicts over control and enforcement. Russian fishers had begun to land their catches in European ports, and in 2002, Norway produced evidence that a new wave of overfishing was underway. ICES found the data convincing, but the Russian authorities did not. Most likely, it was a matter of national prestige: Russia was “rising from its knees” and would not defer to a smaller neighbour. In 2007, the problem found its solution at the multilateral level, when NEAFC introduced a regional system of port-state control.<sup>46</sup>

Another point of friction was Norway’s enforcement policy in the FPZ. In response to IUU fishing by third-party vessels, Norway had departed from its lenient practice, and in 2001, the first Russian vessel was arrested in the zone. Russian reactions were very sharp. Like the Soviet Union, Russia did not recognise the FPZ and held that sanctions were the prerogative of the flag state. Eventually, the Russian authorities called on JNRFRC to deal with the problem. The commission focused on bringing down the rate of transgressions by further harmonising Norwegian and Russian regulations.<sup>47</sup>

In 2009, a milestone was reached when the parties adopted common mesh size and fish size regulations in the cod and haddock fishery. The same year, they set an allocation key for Greenland halibut, thus changing the stock’s status from exclusively Norwegian to shared. A joint research programme, initiated by Russia, had shown that the stock had shifted towards the east. Norwegian fishers claimed that Russia got more than its fair share, but otherwise the change passed without notice. By contrast, the management regime for mackerel in the Norwegian Sea had collapsed after the stock’s distribution changed and the coastal states became embroiled in allocation disputes.<sup>48</sup>

The 2010 delimitation treaty marked a high point in Norwegian-Russian relations. In the northwest Russian fishing regions, however, reactions were negative. Commentators warned that Russian fishers would be pushed out of the Western Barents Sea, and the debate rose to fever pitch in 2011 after Norway arrested several Russian trawlers in the FPZ. On Russia’s request, JNRFRC held a separate session to discuss fisheries in the zone. Soon after, Norway adopted

46 Stokke, “External Shocks,” 183–187.

47 Østhagen et al., “The Svalbard Fisheries Protection Zone,” 157.

48 Jørgensen, “Stock Shifts and Regime Resilience,” 155.

a procedure allowing for the release of arrested vessels at sea upon receipt of a monetary guarantee.<sup>49</sup>

Due to good management and a warmer sea, the cod stock rapidly expanded in the first half of the 2010s.<sup>50</sup> Record high TACs helped ease the tensions between the parties, and the political cooling after Russia's annexation of Crimea left JNRFC relatively unperturbed.<sup>51</sup> However, in the second half of the 2010s, the stock began to decrease. In the main, JNRFC continued to abide by the HCRs, but deviations became more frequent. In 2021, the EU publicly criticised JNRFC's decisions and demanded a say in the management of the cod stock – as well as a higher quota in the FPZ.<sup>52</sup>

The critique was not well received. For decades, JNRFC had been the star performer in the NEA, with the EU lagging well behind.<sup>53</sup> The gap had begun to close after EU reformed its Common Fisheries Policy (CFP) in 2013, but the Barents Sea stocks were in better condition than most stocks in the NEA and involving third parties in the management process was anathema to the coastal states. In fisheries matters, Norway and Russia were allies.

The war in Ukraine has put that alliance under immense pressure. Since 2022, the regime has operated in emergency mode. Most joint activities have been put on hold, and JNRFC's sessions are held digitally.<sup>54</sup> In March 2022, Russia was suspended from ICES, and management advice for the shared stocks is now provided by a Norwegian-Russian scientific working group.<sup>55</sup>

Norway has struggled to keep the balance between loyalty to the sanction regime against Russia and concern for the shared fish stocks. Some of Norway's actions have been criticised by political allies, and a decision to keep three ports open to Russian fishing vessels has also been controversial domestically.

49 Østhagen et al., "The Svalbard Fisheries Protection Zone," 158–59.

50 O. Kjesbu et al., "Synergies between Climate and Management for Atlantic Cod Fisheries at High Latitudes," *Proceedings of the National Academy of Sciences* 111.9 (2014): 3478–3483.

51 Østhagen et al., "The Svalbard Fisheries Protection Zone," 163.

52 P. Bronder, "EU Voices Concern Over Unsustainable Cod Fishing by Norway and Russia around Svalbard," *Barents Observer*, August 29, 2021. <https://www.thebarentsobserver.com/arctic/eu-voices-concern-over-unsustainable-cod-fishing-by-norway-and-russia-around-svalbard/118089>.

53 F. Zimmermann and K.M. Werner, "Improved Management is the Main Driver behind Recovery of Northeast Atlantic Fish Stocks," *Frontiers in Ecology and the Environment* 17, no. 2 (2019). <https://doi.org/10.1002/fee.2002>. See also Kjesbu et al., "Synergies between Climate and Management."

54 Information about (among other things) the format of sessions and joint activities can be found in the protocols from JNRFC's annual sessions. The protocols are available in Norwegian at <https://www.jointfish.com/>.

55 D. Howell et al., "Report of the Russian-Norwegian Working Group on Arctic Fisheries (JRN-AFWG) 2023," *IMR/PINRO Report Series*, no. 7 (2023). <https://www.hi.no/en/hi/nettrapporter/imr-pinro-en-2023-7>.

At JNRFC's sessions in 2022 and 2023, the Russian party stated that it reserved the right to suspend the cooperation should further port closures occur.<sup>56</sup>

### 3.6 *Concluding Remarks*

Several factors help explain the effectiveness and resilience of the Norwegian-Russian fisheries management regime. These include a strong common interest in a valuable fishery, and a history of cooperation going back to the pre-EEZ era. Geopolitical factors have also, for the most part, played a conducive role. To preserve stability in the region, the parties adopted a strategy of conflict avoidance and a bargaining style oriented towards compromise solutions – features that strongly contributed to the regime's endurance over time.

Now the picture appears more complex. Geopolitical tension brought on by Russia's war in Ukraine poses a direct threat to the cooperation. The longer the regime continues to operate in emergency mode the greater the risk that it will end up as an empty construct. Suspending the cooperation would not be in Russia's interest, but the country's political leadership may see it differently.

However, one may argue that the volatile geopolitical situation makes it doubly important for the parties to keep the regime running. A collapse or suspension would destabilise the situation in the Barents Sea, and conflicts might arise if Russian fishers are denied access to Norwegian waters. Indeed, this may be part of the explanation for Norway's eagerness to protect the cooperation.

## 4 The Black Sea Case

### 4.1 *Background*

Located between Southeast Europe and Western Asia, the Black Sea is bordered by Bulgaria, Georgia, Romania, the Russian Federation, Turkey, and Ukraine. Like the Barents Sea, the Black Sea straddles a geopolitical fault line – but a more fluent and dynamic one. For centuries, the Russian and the Ottoman empires vied for dominance in the Black Sea. Since the fall of the Soviet Union, regional development has been hampered by historical grievances, 'frozen' conflicts, and rivalry between three regional powers: Russia, Turkey, and the European Union.

Fishing has always been an important activity in the region, but in recent decades many stocks have collapsed or become depleted. As a semi-enclosed

<sup>56</sup> T. Nilsen, "Russia Threatens to Withdraw from Fishery Deal with Norway. Little to Worry about, Says Expert," *Barents Observer*, October 27, 2023. <https://www.thebarentsobserver.com/industry-and-energy/russia-threatens-to-withdraw-from-fishery-deal-with-norway-little-to-worry-about-says-expert/141922>.

sea in a densely populated region, the Black Sea has been heavily affected by anthropogenic stressors. Overfishing, pollution, and harmful alien species have gradually transformed the ecosystem and upset the balance between species at different trophic levels. The biomass of high-value predatory fish, like bluefish, bonito, and turbot has been reduced to a fraction of former levels, forcing fishers to redirect their efforts towards species of lesser value – a phenomenon known as “fishing down the food web”.<sup>57</sup>

Despite some recent improvements, the marine ecosystem of the Black Sea remains severely degraded, with simplified food webs that render it more vulnerable to collapse.<sup>58</sup> Anchovy and sprat, which are mainly used for fish meal and oil, make up the bulk of the catches. The annual first-hand value of the Black Sea catches is estimated at 200–400 million dollars,<sup>59</sup> just 10–15 per cent of the value of the Barents Sea catches. The average catch value per tonne is five times higher in the Mediterranean than it is in the Black Sea.<sup>60</sup>

All the riparian states take part in the Black Sea fisheries, but Turkey alone accounts for more than 60 per cent of the catches. By contrast, the combined catches of Bulgaria, Romania and Ukraine only make up 5–6 per cent of the total. Reported catches peaked in the 1980s at 700–800,000 tonnes per year, then sharply fell when the anchovy stock collapsed. Since then, they have fluctuated around an average of about 450,000 tonnes per year.<sup>61</sup> The fishing industry’s contribution to the regional economy is modest, but fishing is a key source of income for many coastal communities.

Better management is vital to ensure the long-term sustainability and productivity of the Black Sea fisheries. It is unlikely that the ecosystem can be returned to its prior state, but systematic efforts to rebuild top predator stocks

57 G.M. Daskalov et al., “Trophic Cascades Triggered by Overfishing Reveal Possible Mechanisms of Ecosystem Regime Shifts,” *Proceedings of the National Academy of Sciences* 104, no. 25 (2007): 10518–10523. <https://doi.org/10.1073/pnas.0701100104>; D. Pauly et al., “Fishing down Marine Food Webs,” *Science* 279, no. 5352 (1998): 860–863. <https://doi.org/10.1126/science.279.5352.860>.

58 N. Demirel et al., “First Large-Scale Eastern Mediterranean and Black Sea Stock Assessment Reveals a Dramatic Decline,” *Frontiers in Marine Science* 7 (2020). <https://doi.org/10.3389/fmars.2020.00103>.

59 Authors’ calculation, based on data on catches and catch value for both regions in FAO, *The State of Mediterranean and Black Sea Fisheries 2022* (GFCM, 2022).

60 Global Environmental Facility (GEF), *Fisheries and Ecosystem Based Management for the Black Sea* (2020). [https://www.thegef.org/sites/default/files/web-documents/10558\\_IW\\_PIF\\_v1.pdf](https://www.thegef.org/sites/default/files/web-documents/10558_IW_PIF_v1.pdf); FAO, *State of Mediterranean and Black Sea Fisheries 2022*.

61 GEF, *Fisheries and Ecosystem Based Management for the Black Sea*; Sea Around Us, “Catches by Taxon in the Black Sea,” accessed December 12, 2023, <https://www.seaaroundus.org/data/#/meow/155?chart=catch-chart&dimension=taxon&measure=tonnage&limit=10>.

could increase the economic yield of the fisheries and make the ecosystem more robust.<sup>62</sup> As most of the commercial stocks are transboundary, this cannot be achieved unless the riparian states coordinate their efforts. For various reasons, they have struggled to do so, and given Russia's war in Ukraine, the outlook for progress now seems extremely bleak.

#### 4.2 *Fisheries Management in the Cold War Period: a Divided Sea*

Formally, the Black Sea has always been part of the area of application of the General Fisheries Commission for the Mediterranean (GFCM).<sup>63</sup> However, in the Cold War era, the Soviet Union dominated the fisheries, and the socialist states had their own fisheries management regime, codified in the 1959 Varna Convention.<sup>64</sup> A commission set up by the three states – Bulgaria, Romania, and the Soviet Union – adopted management measures for the fisheries, but they were too weak to prevent stock depletion. In terms of data collection and science, the regime was quite advanced for its time,<sup>65</sup> but it lost much of its relevance when Turkey emerged as the leading fishing nation in the 1980s.

In the Black Sea, the introduction of EEZs did not give rise to any new fisheries management arrangements. Rather, relations between Turkey and the other riparian states soured when Turkish fishers had to withdraw from areas where they had previously operated. In 1987, Turkey and the Soviet Union reached agreement on the delimitation line between their EEZs, but the Soviet Union turned down Turkey's request for turbot quotas in Soviet waters. The resentment felt by Turkish fishers may have contributed to the spike in cross-border IUU fishing by Turkish vessels in the 1990s.<sup>66</sup>

62 I.C. Goulding et al., "Potential Economic Impacts of Achieving Good Environmental Status in Black Sea Fisheries," *Ecology and Society* 9, no. 3 (2014). <https://www.jstor.org/stable/26269641>.

63 Agreement for the establishment of a General Fisheries Commission for the Mediterranean as amended by the General Fisheries Council for the Mediterranean at its first special session (May 1963), at its thirteenth session (July 1976) and at its twenty-second session (October 1997) and approved by the FAO Conference at its twelfth session (December 1963) and by the FAO Council at its seventieth session (December 1976) and at its hundred and thirteenth session (November 1997), Nov. 11, 1997, 2275 UNTS 157.

64 Convention concerning Fishing in the Black Sea, Mar. 21, 1960, 377 UNTS 203.

65 T.D. Adams et al., *Europe's Black Sea Dimension* (Centre for European Policy Studies, 2002), 96. <https://www.ceps.eu/ceps-publications/europes-black-sea-dimension/>; S. Knudsen, "Marine Governance in the Black Sea," in *Governing Europe's Marine Environment*, eds. M. Gilek and K. Kern (Routledge, 2015), 229.

66 B. Öztürk, "Some Remarks of Illegal, Unreported and Unregulated (IUU) Fishing in Turkish Part of the Black Sea," *Journal of the Black Sea/Mediterranean Environment* 19, no. 2 (2013): 256–267. <https://blackmeditjournal.org/wp-content/uploads/256-267-Vol19-No2Bayram.pdf>.

### 4.3 *Negotiations on a New Fisheries Management Regime: a Long Road to Nowhere*

After the Cold War, regional cooperation was perceived as a way to build security and foster economic development in the Black Sea region. For Russia and Turkey, who both aspired to a leading role in the region, it also presented opportunities for enhancing their position and influence.<sup>67</sup> The 1990s saw the emergence of numerous regional initiatives and agreements, many of them focused on environmental issues. However, due to economic decline, institutional decay, and other 'transition' problems, the Black Sea states hesitated to commit the resources required to implement the new agreements – particularly in areas like environmental and resource management where pay-offs are uncertain and seldom immediate. Many ambitious projects ran into trouble in the implementation phase due to underfunding and a lack of political interest.<sup>68</sup>

In 1992, the riparian states adopted the Bucharest Convention on the Protection of the Black Sea against Pollution.<sup>69</sup> Soon after, they set out to produce a similar agreement on fisheries management which could serve as a basis for a future Black Sea RFMO – but here, they faced massive challenges. The fisheries management systems in the former socialist states were crumbling. Research activities were scaled back, control agencies became largely dysfunctional, and IUU fishing skyrocketed.<sup>70</sup> Also the fishing industry was in crisis. The state-owned fishing fleets were split up and privatised and the new owners struggled to cover the costs of fuel, maintenance, and investments.<sup>71</sup> In all states, barring Turkey, official catches fell to about 10 per cent of former levels.<sup>72</sup> A similar trend was observed for catch capacity.<sup>73</sup> Meanwhile, Turkey

67 P. Manoli, *Reinvigorating Black Sea Cooperation: A Policy Discussion*. Policy Report III to the Commission on the Black Sea (Bertelsmann Stiftung, 2010). [https://www.files.ethz.ch/isn/115943/2010\\_PolicyReport-3.pdf](https://www.files.ethz.ch/isn/115943/2010_PolicyReport-3.pdf).

68 Manoli, *Reinvigorating Black Sea Cooperation*, 24; Knudsen, "Marine Governance."

69 Convention on the Protection of the Black Sea against Pollution, Apr. 21, 1992, 1764 UNTS 3.

70 S. Knudsen and H. Toje, "Post-Soviet Transformations in Russian and Ukrainian Black Sea Fisheries: Socio-Economic Dynamics and Property Relations," *Southeast European and Black Sea Studies* 8, no. 1 (2008): 24–25. <https://doi.org/10.1080/14683850802012149>; A.K. Jørgensen, "Recent Developments in the Russian Fisheries Sector," in *Russia and the North*, ed. E. Rowe (University of Ottawa Press, 2009).

71 Knudsen and Toje, "Post-Soviet Transformations," 57.

72 Oguz et al., "Current State of Overfishing and its Regional Differences in the Black Sea," *Ocean and Coastal Management* 58 (2012): 47. <https://doi.org/10.1016/j.ocecoaman.2011.12.013>.

73 Knudsen and Toje, "Post-Soviet Transformations," 20.



further expanded its fishing industry, thus cementing its position as the dominant fishing nation in the Black Sea.

Moreover, the riparian states were embroiled in conflicts related to the use of the sea. The process of EEZ delimitation had not been completed before the Soviet Union fell apart, and its demise gave rise to new disagreements over maritime boundaries. For instance, Romania and Ukraine “inherited” a Romanian-Soviet dispute over the waters around Snake Island,<sup>74</sup> and the Georgia-Abkhazia conflict enabled Russia to establish *de facto* control over a large chunk of the Georgian EEZ.

Cross-border IUU fishing was widespread and led to a series of violent – sometimes deadly – incidents, where fishers from one riparian state clashed with enforcement agencies from another state. Turkish citizens were over-represented among the perpetrators, and thus also among the victims.<sup>75</sup> In a way, this was to be expected. Turkey had the highest number of fishers in the region and substantial overcapacity in the fishing fleet, and many Turkish fishers had struggled to get by after they were barred from the fishing grounds in the northern Black Sea.<sup>76</sup>

Finally, there was reason to fear that Turkey's overwhelming dominance in the fishery would complicate the negotiations on the new convention.<sup>77</sup> Management of transboundary stocks normally involves a sharing agreement, often reflecting the amounts of fish in each party's EEZ. Based on this criterion, Turkey was taking more than its share of the catches,<sup>78</sup> and thus it was widely assumed that the country had everything to lose from an agreement.<sup>79</sup>

This may explain why the parties left the allocation issue to be decided after the adoption of the convention – unlike Norway and the Soviet Union who had settled the question before any formal agreements were in place. Still, the negotiations proved difficult. The substantive provisions of the agreement were not the main stumbling block; instead, there were endless discussions on cost sharing and the location and institutional affiliation of the future

74 The dispute was settled in 2009 by the International Court of Justice. The ruling awarded nearly 80 per cent of the disputed area to Romania.

75 Knudsen, “Marine Governance,” 241; Öztürk, “Some Remarks of IUU Fishing,” 260. Öztürk reports that five Turkish citizens lost their lives in such incidents from 1992 to 2012.

76 Öztürk, “Some Remarks of IUU Fishing,” 258.

77 J. Caddy, *Recent Experience and Future Options for Fisheries Assessment and Management in the Black Sea: A GFCM Perspective*. Draft document presented at GFCM's 31st session in 2008. [https://www.fao.org/fishery/docs/DOCUMENT/gfcm/gfcm\\_32/dma4e.pdf](https://www.fao.org/fishery/docs/DOCUMENT/gfcm/gfcm_32/dma4e.pdf).

78 J. Caddy, *Recent Experience and Future Options*, 20–21.

79 Knudsen and Toje, “Post-Soviet Transformations,” 22.

RFMO.<sup>80</sup> Reportedly, Russia and Turkey in particular found it hard to reconcile their positions.<sup>81</sup>

At first, the negotiations were held in diplomatic conferences, but in 2000, on Turkey's initiative, they were transferred to the Black Sea Economic Cooperation (BSEC). Apparently, the idea was to save costs by making the RFMO a subsidiary of BSEC.<sup>82</sup> In 2002, the negotiations were again moved to a new venue, the Black Sea Commission (BSC), set up to implement the Bucharest Convention. The relationship between BSC and the RFMO would be clarified when the convention was in place.<sup>83</sup>

Under the auspices of BSC, foreign experts reworked the convention text, and the ensuing 'draft legally binding document' (LBD) was quite ambitious.<sup>84</sup> It committed the parties to abide by the precautionary approach, the ecosystem-based approach, and the principle of sustainable development. It also obliged them to negotiate TACs for shared stocks. Part of the text was in brackets, reflecting remaining issues of contention. In 2005 the BSC formally approved the draft LBD. The parties continued to work on the outstanding issues, and reportedly in 2007 they were very close to reaching agreement.<sup>85</sup>

As it turned out, the process was derailed virtually at the finishing line. In 2007, Romania and Bulgaria joined the EU, and under the Common Fisheries Policy (CPC) the Union represents its member states in agreements with third parties. To sign the LBD, the EU had to first become a party to the Bucharest Convention and a member of BSC. However, Russia and Turkey were sceptical of EU's ambitions in the Black Sea and opposed to its participation in regional institutions.<sup>86</sup> The formal objection was that the convention did not foresee any other parties than individual states. In 2009, an expert group was created to consider an amendment to the document, but to little avail. After three meetings, the experts concluded that the six BSC members were unable to reach agreement.<sup>87</sup> Thus, the LBD could not be signed, and the Black Sea Fisheries Commission never came into being.

80 I. Stribis, "Black Sea Fisheries: The Long Search for an Effective Forum for International Regulation," in *Maritime Safety and Environmental Protection in Europe. Multiple Layers in Regulation and Compliance*, eds. M. Ribeiro and E. Molenaar (Marsafenet, 2015), 127–172.

81 Knudsen, "Marine Governance," 241–42.

82 Stribis, "Black Sea Fisheries," 156–157.

83 Stribis, "Black Sea Fisheries," 160.

84 Draft legally binding document for fisheries and conservation of living resources of the Black Sea. Black Sea Commission, no date <http://www.blacksea-commission.org/Downloads/DraftLegalBindDocOnFisheries.pdf>.

85 Knudsen, "Marine Governance," 242.

86 Knudsen, "Marine Governance," 236–242.

87 Stribis, "Black Sea Fisheries," 167.

#### 4.4 Enter the GFCM

In 2007, the EU began to apply the CFP in the Black Sea. New fisheries regulations were adopted, including TACs for turbot and sprat – but as these measures only applied to the waters of EU members Bulgaria and Romania, there was a high risk that the benefits of these states' conservation efforts would accrue to their neighbours.<sup>88</sup> Closer cooperation between the riparian states was the only solution to this conundrum, but the EU's attempts to engage the non-EU states met with resistance, mainly from Russia.<sup>89</sup> However, GFCM was already engaged in other Black Sea projects, Turkey supported its involvement in the region – and EU came to see GFCM as a pragmatic alternative and a vehicle for its own cooperation with the Black Sea states.<sup>90</sup> Russia's stance was more ambiguous, but it seemed to prefer GFCM to the EU (see below).

The question was whether GFCM could 'deliver'. Its track record in the Mediterranean was not impressive: the share of overfished stocks was nearly as high as in the Black Sea.<sup>91</sup> GFCM leaned primarily on effort control (keeping fishing capacity in check) rather than output control (TACs), and the technical regulations adopted for the Mediterranean fisheries were weak.<sup>92</sup> Moreover, none of the three ex-Soviet states were members of GFCM, so they would not be bound by its decisions. However, relevant states were welcome to apply for membership, and on several occasions, Russia signalled its interest in joining the organisation.<sup>93</sup>

In the meantime, GFCM had to find a means of cooperation with the riparian states, including non-contracting parties. In 2011, it set up a Working Group for the Black Sea (WGBS) whose main task was to provide scientific advice on the stocks. All six states were invited to take part in WGBS meetings and to share data on the stocks and the fisheries.<sup>94</sup> GFCM also strove to coordinate

88 T. O'Higgins et al., "Achieving Good Environmental Status in the Black Sea: Scale Mismatches in Environmental Management," *Ecology and Society* 19, no. 3 (2014): 54. <http://dx.doi.org/10.5751/ES-06707-190354>.

89 Knudsen, "Marine Governance," 242–3.

90 Stribis, "Black Sea Fisheries," 168.

91 FAO, *State of Mediterranean and Black Sea Fisheries 2022*.

92 I. Vielmini et al. "Untying the Mediterranean Gordian Knot: A Twenty First Century Challenge for Fisheries Management," *Frontiers in Marine Science* 4 (2017). <https://doi.org/10.3389/fmars.2017.00195>.

93 In 2013, the Russian delegate to a meeting in a GFCM committee stated that, in Russia, the process regarding GFCM accession was 'advanced'. GFCM, *Report of the Seventh Session of the Committee of Compliance* (GFCM, 2013), 3. <https://openknowledge.fao.org/server/api/core/bitstreams/036fb883-8fcc-45c8-8942-20580586d210/content>.

94 Stribis, "Black Sea Fisheries," 157–158.

its efforts with those of the BSC. In 2012, the two organisations signed a Memorandum of Understanding.<sup>95</sup>

Much spade work had to be done before GFCM could adopt the first regulations for the Black Sea fisheries. Knowledge gaps had to be bridged to allow for science-based management decisions and capacity building was essential to ensure that the decisions could be implemented and enforced. The magnitude and cost of these tasks required GFCM to cooperate with the EU and other partner and donor organisations. Progress was fastest in the scientific realm, where the emphasis was on stock assessments. WGBS played a key role in this work. However, the riparian states' different traditions in research and reporting were a challenge. The collection of national statistics progressed slowly, and Russia seemed unwilling to share data on its fisheries.<sup>96</sup>

In 2014, GFCM radically revised its management policy, aligning it with the EU's reformed CFP from 2013.<sup>97</sup> The new policy obliged GFCM to apply the precautionary and ecosystem-based approaches to management, and to adopt measures to prevent overfishing. Multiannual management plans (MAPs) were introduced as tools to ensure that fish stocks were maintained at – or rebuilt to – levels capable of producing MSY.<sup>98</sup>

The new tools enabled GFCM to start reversing the negative trends that had persisted for so long in its area of application. In 2017, the first MAP was adopted for a Black Sea stock – turbot. Among its provisions were annual TACs, with specified shares for each riparian state, gear and area restrictions, and measures to counter IUU fishing.<sup>99</sup> MAPs for other stocks are in the pipeline. In 2020, FAO reported that the share of overfished stocks was decreasing in the Black Sea as well as in the Mediterranean.<sup>100</sup>

Sadly, 2014 also marked a watershed in Black Sea geopolitics. With the annexation of Crimea, Russia claimed jurisdiction in the 200-mile zone outside the peninsula – more than half of Ukraine's EEZ – and established *de facto* control in the area.<sup>101</sup> The Crimean fishing fleet passed into Russian hands,

95 GEF, *Fisheries and Ecosystem Based Management for the Black Sea*, 29.

96 Knudsen, "Marine Governance," 241, 243.

97 I. Vielmini et al., "Untying the Mediterranean Gordian Knot."

98 Vielmini et al., "Untying the Mediterranean Gordian Knot."; GFCM, *Report of the Third Extraordinary Session* (Adopted May 18, 2014). <https://openknowledge.fao.org/server/api/core/bitstreams/532a34fc-c568-4fde-8829-047bd726c7f0/content>.

99 GFCM, *Recommendation on a Multiannual Management Plan for Turbot Fisheries in the Black Sea* (2017). <https://faolex.fao.org/docs/pdf/mul175726.pdf>.

100 FAO, *The State of Mediterranean and Black Sea Fisheries 2020*, (GFCM, 2020). <http://www.fao.org/3/cb2427en/CB2427EN.pdf>.

101 K. Åtland, "Redrawing Borders, Reshaping Orders: Russia's Quest for Dominance in the Black Sea Region," *European Security* 30, no. 2 (2021): 305–324. <https://doi.org/10.1080/09662839.2021.1872546>.

along with Ukraine's most prominent fisheries research facilities. Russia vastly increased its catches and took over Ukraine's position as the second largest fishing nation in the region.<sup>102</sup>

Russia also began to distance itself from GFCM. Ukraine and Georgia moved in the other direction. Though hampered by weak capacities, they strove to comply with GFCM's decisions. In 2015, both states were granted status as "cooperating non-contracting parties".<sup>103</sup> Russia continued to participate in meetings of GFCM and its subsidiary bodies, but membership was no longer on its agenda. Instead, Russia argued that GFCM should give more autonomy to WGBS: its recommendations should be adopted "by consensus" and GFCM should adopt them "without substantive discussion".<sup>104</sup> In other words, Russia would only cooperate if it could block any decisions it did not agree with.

Russia's expansion in the Black Sea was becoming a major headache for GFCM. At the 42nd session in 2018, the Ukrainian delegate called on GFCM to acknowledge the illegal nature of Russia's fishery in Crimean waters. Moreover, he claimed that certain provisions in the MAP for turbot contradicted international law. He did not specify this further, but in 2019 the MAP was amended. The quota share set aside for Russia (now referred to as "Others") had been more than halved, with corresponding increases in the shares allotted to Ukraine and Georgia.<sup>105</sup>

Russia's changed perception of GFCM is borne out in a 2021 article where three Russian scholars argued that an "aggressive position" towards Russia had developed in GFCM after Ukraine and Georgia became cooperating parties. Pointing to the EU's central position in GFCM, and its support for Ukrainian and Georgian views on Russia's illegal fishery in their EEZs, the authors

<sup>102</sup> Russian catches increased by about two thirds in 2014, then doubled from 2014 to 2015 (Åtland, "Redrawing borders", 314–15). In 2020–2021, Russia accounted for 13.1 per cent of Black Sea landings; Ukraine for 2.3 per cent (FAO, *The State of Mediterranean and Black Sea Fisheries 2023 – Special edition* [GFCM, 2023], 6). <https://doi.org/10.4060/cc8888en>.

<sup>103</sup> FAO, *Report of the 39th Session of the GFCM, Milan, 25–29 May 2015* (GFCM, 2015). [https://www.fao.org/fileadmin/user\\_upload/gfcm/docs/GFCM-FinalReport-Commission-39-en.pdf](https://www.fao.org/fileadmin/user_upload/gfcm/docs/GFCM-FinalReport-Commission-39-en.pdf).

<sup>104</sup> GFCM, *Subregional Consultations on the 2nd GFCM Performance Review – Black Sea Subregion* (2019). <https://www.fao.org/gfcm/technical-meetings/detail/en/c/1238634/>.

<sup>105</sup> FAO, *Report of the 42nd Session of the GFCM, FAO, Rome, 22–26 October 2018* (GFCM, 2018). <https://openknowledge.fao.org/server/api/core/bitstreams/edd16e17-cca7-4193-960c-b64e2efc91c5/content>; FAO, *Report of the 43rd Session of the GFCM, Athens, 4–8 November 2019* (GFCM, 2019). <https://openknowledge.fao.org/server/api/core/bitstreams/cd7677dd-5096-42ff-922d-fcf54ffe78b/content>.

concluded that, “for economic and political reasons” membership in GFCM was not in Russia’s interest.<sup>106</sup>

#### 4.5 *Concluding Remarks*

Many factors have hampered regional fisheries cooperation in the Black Sea, including weak capabilities at the national level, lack of political will to prioritise these issues, and the unequal distribution of capacities and catches between the region’s fishing nations. These problems should not be underestimated, but given sufficient time and resources they could be overcome. The progress made in recent years under the auspices of GFCM points in that direction.

By contrast, and regardless of the outcome of Russia’s war in Ukraine, the geopolitical situation in the Black Sea is likely to remain tense for a very long time. Cooperation under GFCM will probably continue in the five-party format. However, as these five states share the fish stocks with an uncooperative neighbour, there are limits to what they can achieve, particularly if Russia manages to hang on to the maritime areas it currently controls.

### 5 Comparisons and Conclusions

As shown in this article, many factors, including geopolitics, help explain the presence of a well-functioning fisheries management regime in the Barents Sea but its absence in the Black Sea.

In terms of *problem malignancy*, both regions are outliers, but at different ends of the scale. In the Barents Sea, the level of anthropogenic disturbance is modest. Overfishing has been a problem at times, but irreversible stock collapses and ecosystem transformations have been avoided. The interaction between the main fish stocks is well understood. The main task of JNRFCC is well-defined and solvable: maintaining the stocks at levels ensuring long-term productivity.

The situation in the Black Sea is far more complex. First, fisheries regulations may not have the expected impact unless other issues, including pollution, are addressed at the same time. Second, fisheries managers face some difficult dilemmas concerning the choice of management strategies. Rebuilding depleted predator stocks will benefit the ecosystem and the fishers targeting

---

106 D. Bekyashev et al., “Legal Aspects of Cooperation between the EU and Third States in the Field of Fisheries,” *Advances in Law Studies* 9, no. 2 (2021): 36–40. <https://doi.org/10.29039/2409-5087-2021-9-2-36-40>.

those stocks, but it may not benefit the (currently dominant) small pelagic fisheries. Likewise, some harmful invasive species, such as the sea snail *rapana venosa*, have a high commercial value and measures to contain them will cause losses in fisheries targeting these species.

The *configuration of actors and interests* is far more auspicious in the Barents Sea case than in the Black Sea case. In the Barents Sea, there are just two coastal states. This in itself makes it easier to reach agreement. As both have a large stake in the fisheries, they have a strong common interest in conserving the stocks and keeping third party fishing within limits. The spatial distribution of the stocks makes mutual access attractive to both parties. It also makes defection costly, particularly for Russia.

In the Black Sea, there are six riparian states with very different stakes in the fisheries. This is a recipe for conflict. Moreover, the economic incentives for cooperation are weaker than in the Barents Sea. Even in Turkey, the fishing industry's contribution to the national economy is modest. As the leading fishing nation, Turkey has the most to lose if conservation policies fail – but it may also have the most to lose from cooperation. The other states can be expected to push for allocation schemes that reduce Turkey's share in the catches, and for management strategies that would require Turkey to scale back its anchovy fishery and leave more of the stock as food for predatory fish.

*Regional fisheries governance systems* have played an important role in the Barents Sea, but not – until recently – in the Black Sea. In the pre-EEZ era, Norway and the Soviet Union cooperated in ICES and NEAFC, and the current bilateral regime is nested in a regional fisheries governance system anchored in these organisations. Both bodies have served as arenas for debates on fisheries science and management in the NEA and have helped the coastal states align their views and approaches. JNRFC has obtained its results by basing its decisions on independent management advice from ICES.

In the Black Sea, there is no such layered system of fisheries governance. GFCM has a modest track record, and it has no ICES to lean on. Historically, it has played a minor role in the Black Sea. In the Soviet period, the socialist states shared a common management system, but Turkey remained on the outside. Thus, the management traditions of the leading Black Sea fishing nation differ markedly from those of its neighbours. Notably, Turkey does not use TACs to manage its fisheries.

*Geopolitical factors* have been conducive to fisheries management cooperation in the Barents Sea, but a hindrance to cooperation in the Black Sea. For geopolitical reasons, Russia has opted for cooperation in the first region but not in the second. Of the six Arctic littoral states, Russia is the only one which is not a NATO member. In this part of the world, Russia has everything to gain

by playing by the rules and avoiding confrontation with its neighbours. The “rules-based international order” has served the country well in the Arctic. Notably, UNCLOS gives international recognition for Russia’s enormous Arctic EEZ and continental shelf. In official Russian rhetoric, the Arctic has been portrayed as a region of peace and stability – but also as a region where Russia must constantly be on its guard against an aggressive NATO.

The Barents Sea is of vital strategic importance to Russia as well as to NATO. Both engage in power projection in the region, to deter the other. Although Russia seems less risk-averse than before, it will likely do its utmost to avoid a direct confrontation with NATO. Besides, the demise of the Soviet Union did not affect this region in the way it affected the Baltic and Black Sea regions. No borders changed, no new states emerged, and Russia had no spheres of influence to lose. Svalbard may be a sore point, but Russia’s policies in the region are not shaped by historical grievances.

In the Black Sea region, the geopolitical impact of the Soviet collapse was profound. The Soviet period marked the high point of Russian domination in the region. The turning point came in 1989, when the Soviet Union’s ‘outer empire’ fell apart. Since then, a series of armed conflicts have turned the Black Sea into “the world’s bloodiest body of water”.<sup>107</sup> Russia has been involved in most of them, usually in an attempt to retain or expand its influence in a given area. However, this strategy has proven counterproductive. One by one, the other riparian states have drifted away from Russia. The sole exception is Turkey, which, like Russia, wants to curb the EU’s influence in the region. Over time, Russia’s policy towards its Black Sea neighbours has become increasingly aggressive, a process which culminated in the invasion of Ukraine in 2022.

Russia’s war against Ukraine has affected fisheries cooperation in both seas, but in different ways. In the Arctic, Russia has been excluded from international fora and bilateral contacts with Norway have been reduced. Nevertheless, cooperation on the management of joint stocks in the Barents Sea continues almost as before the war. In this region Russia perceives itself to be in a vulnerable position. Consequently, the best way for it to protect its interests is to abide by international law, in the expectation that its neighbours will do the same, and to cooperate with them in areas of common interest. The fisheries cooperation with Norway is a case in point. It serves Russia’s economic interests, it helps preserve stability in a region where Russia profits from the status quo, and it supports Russia’s image of itself as a responsible and law-abiding Arctic state. In the present situation, Russia should be very interested in protecting what

---

107 M. Hess, “Welcome to the Black Sea Era of War,” *Foreign Policy Magazine*, Apr. 25, 2022. <https://foreignpolicy.com/2022/04/25/black-sea-war-russia-ukraine-turkey/>.



is left of its alliance with Norway in the Barents Sea, not least given the EU's attempts to weaken this alliance.

In the Black Sea region, the hope that GFCM could serve as a framework for fisheries cooperation involving all six riparian states effectively expired after Russia's annexation of Crimea in 2014. The 2022 invasion of Ukraine can best be described as the last nail in the coffin. In this region, Russia now stands forth as a revisionist power, seeking to reverse the loss of influence it sustained after the demise of the Soviet Union.<sup>108</sup> Although Russia tries to give its aggressive acts a veneer of legitimacy, for instance by arranging 'elections' in occupied areas, the credo it abides by in this region is 'might makes right'.<sup>109</sup> Whether motivated by security considerations, historical grievances, or both, Russia is aiming to reestablish its dominant position in the region. Given these aspirations, it is not surprising that Russia will only take part in fisheries management cooperation on its own terms. Besides, keeping EU influence within limits is far more important to Russia than preserving fish stocks. In the Black Sea region, Russia's fisheries interests are not aligned with its foreign policy objectives.

### Acknowledgements

This article is a product from the research project Interdisciplinary Research on Russia's Geopolitics in the Black Sea and the Arctic Ocean financed by the EEA and Norway Grants EEA-RO-NO-2018-0532. The authors are grateful for comments from Arild Moe and two anonymous reviewers.

### References

- Adams, T.D. et al., *Europe's Black Sea Dimension* (Centre for European Policy Studies, 2002). <https://www.ceps.eu/ceps-publications/europes-black-sea-dimension/>.
- Agreement concerning mutual relations in the field of fisheries, Oct. 15, 1976, 1157 UNTS 139.
- Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and

<sup>108</sup> Åtland, "Redrawing borders."

<sup>109</sup> Åtland, "Redrawing borders," 312.

- Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Aug. 4 1995, 2167 UNTS 3.
- Agreement on a Temporary Practical Arrangement for Fishing in an Adjacent Area in the Barents Sea, Jan. 11, 1978.
- Agreement on co-operation in the fishing industry, Apr. 11, 1975, 983 UNTS 3.
- Åtland, K. "Redrawing Borders, Reshaping Orders: Russia's Quest for Dominance in the Black Sea Region," *European Security* 30, no. 2 (2021): 305–324. <https://doi.org/10.1080/09662839.2021.1872546>.
- Bekyashev, D. et al., "Legal Aspects of Cooperation between the EU and Third States in the Field of Fisheries," *Advances in Law Studies* 9, no. 2 (2021): 36–40. <https://doi.org/10.29039/2409-5087-2021-9-2-36-40>.
- Bjørndal, T. "Overview, Roles and Performance of the North East Atlantic Fisheries Commission (NEAFC)," *Marine Policy* 33, no. 4 (2009): 685–697.
- Bronder, P. "EU Voices Concern Over Unsustainable Cod Fishing by Norway and Russia around Svalbard," *Barents Observer*, August 29, 2021. <https://www.thebarentsobserver.com/arctic/eu-voices-concern-over-unsustainable-cod-fishing-by-norway-and-russia-around-svalbard/118089>.
- Caddy, J. *Recent Experience and Future Options for Fisheries Assessment and Management in the Black Sea: A GFCM Perspective*. Draft document presented at GFCM's 31st session in 2008. [https://www.fao.org/fishery/docs/DOCUMENT/gfcm/gfcm\\_32/dma4e.pdf](https://www.fao.org/fishery/docs/DOCUMENT/gfcm/gfcm_32/dma4e.pdf).
- Convention concerning Fishing in the Black Sea, Mar. 21, 1960, 377 UNTS 203, <https://www.jus.uio.no/english/services/library/treaties/08/8-02/black-sea.html>.
- Convention on the Protection of the Black Sea against Pollution, Apr. 21, 1992, 1764 UNTS 3.
- Daskalov, G.M. et al., "Trophic Cascades Triggered by Overfishing Reveal Possible Mechanisms of Ecosystem Regime Shifts," *Proceedings of the National Academy of Sciences* 104, no. 25 (2007): 10518–10523. <https://doi.org/10.1073/pnas.0701100104>.
- Demirel, N. et al., "First Large-Scale Eastern Mediterranean and Black Sea Stock Assessment Reveals a Dramatic Decline," *Frontiers in Marine Science* 7 (2020). <https://doi.org/10.3389/fmars.2020.00103>.
- Draft legally binding document for fisheries and conservation of living resources of the Black Sea. Black Sea Commission, no date <http://www.blacksea-commission.org/Downloads/DraftLegalBindDocOnFisheries.pdf>.
- FAO, Code of Conduct for Responsible Fisheries (FAO, 1995), <https://www.fao.org/4/v9878e/v9878e00.htm>.
- FAO, *Report of the 39th Session of the GFCM, Milan, 25–29 May 2015* (GFCM, 2015). [https://www.fao.org/fileadmin/user\\_upload/gfcm/docs/GFCM-FinalReport-Commission-39-en.pdf](https://www.fao.org/fileadmin/user_upload/gfcm/docs/GFCM-FinalReport-Commission-39-en.pdf).

- FAO, *Report of the 42nd Session of the GFCM, FAO, Rome, 22–26 October 2018* (GFCM, 2018). <https://openknowledge.fao.org/server/api/core/bitstreams/eddi6e17-cca7-4193-960c-b64e2efc91c5/content>.
- FAO, *Report of the 43rd Session of the GFCM, Athens, 4–8 November 2019* (GFCM, 2019), <https://openknowledge.fao.org/server/api/core/bitstreams/cd7677dd-5096-42ff-922d-fcf54ffe78b/content>.
- FAO, *The State of Mediterranean and Black Sea Fisheries 2020*, (GFCM, 2020). <http://www.fao.org/3/cb2427en/CB2427EN.pdf>.
- FAO, *The State of Mediterranean and Black Sea Fisheries 2022* (GFCM, 2022).
- FAO, *The State of Mediterranean and Black Sea Fisheries 2023 – Special edition* (GFCM, 2023). <https://doi.org/10.4060/cc8888en>.
- Fossheim, M. et al., “Recent Warming Leads to a Rapid Borealization of Fish Communities in the Arctic,” *Nature Climate Change* 5 (2015): 673–678. <https://doi.org/10.1038/NCLIMATE2647>.
- Gezelius, S. and R. Raakjær, eds., *Making Fisheries Management Work* (Springer, 2008).
- General Fisheries Commission for the Mediterranean (GFCM), *Recommendation on a Multiannual Management Plan for Turbot Fisheries in the Black Sea* (2017). <https://faolex.fao.org/docs/pdf/mul175726.pdf>.
- GFCM, *Report of the Seventh Session of the Committee of Compliance* (GFCM, 2013), 3. <https://openknowledge.fao.org/server/api/core/bitstreams/036fb883-8fcc-45c8-8942-20580586d210/content>.
- GFCM, *Report of the Third Extraordinary Session* (Adopted May 18, 2014). <https://openknowledge.fao.org/server/api/core/bitstreams/532a34fc-c568-4fde-8829-047bd726c7f0/content>.
- GFCM, *Subregional Consultations on the 2nd GFCM Performance Review – Black Sea Subregion* (2019). <https://www.fao.org/gfcm/technical-meetings/detail/en/c/1238634/>.
- Global Environmental Facility (GEF), *Fisheries and Ecosystem Based Management for the Black Sea* (2020). [https://www.thegef.org/sites/default/files/web-documents/10558\\_IW\\_PIF\\_v1.pdf](https://www.thegef.org/sites/default/files/web-documents/10558_IW_PIF_v1.pdf).
- Goulding, I.C. et al., “Potential Economic Impacts of Achieving Good Environmental Status in Black Sea Fisheries,” *Ecology and Society* 9, no. 3 (2014). <https://www.jstor.org/stable/26269641>.
- Hammer, M. and A. Hoel, “The Development of Scientific Cooperation under the Norway-Russia Fisheries Regime in the Barents Sea,” *Arctic Review on Law and Politics* 3, no. 2 (2012). <https://doi.org/10.23865/arctic.v3.36>.
- Hess, M. “Welcome to the Black Sea Era of War,” *Foreign Policy Magazine*, Apr. 25, 2022. <https://foreignpolicy.com/2022/04/25/black-sea-war-russia-ukraine-turkey/>.
- Hønneland, G. *Making Fisheries Agreements Work: Post-Agreement Bargaining in the Barents Sea* (Edward Elgar, 2012).

- Howell, D. et al., "Report of the Russian-Norwegian Working Group on Arctic Fisheries (JRN-AFWG) 2023," *IMR/PINRO Report Series*, no. 7 (2023). <https://www.hi.no/en/hi/nettrapporter/imr-pinro-en-2023-7>.
- ICES, Arctic Fisheries Working Group (AFWG). *ICES Scientific Reports* (December 13, 2021). <https://doi.org/10.17895/ices.pub.8196>.
- IPBES. "Global Assessment Report on Biodiversity and Ecosystem Services of the Inter-governmental Science-policy Platform on Biodiversity and Ecosystem Services," Zenodo, May 4, 2019. <https://doi.org/10.5281/zenodo.6417333>.
- Jørgensen, A.K. "Recent Developments in the Russian Fisheries Sector," in *Russia and the North*, ed. E. Rowe (University of Ottawa Press, 2009).
- Jørgensen, A.K. "Stock Shifts and Regime Resilience in the Barents Sea," in *Marine Resources, Climate Change and International Management Regimes*, eds. O. Stokke, A. Østhagen and A. Raspotnik (Bloomsbury Academic, 2022). <https://library.oapen.org/handle/20.500.12657/58864>.
- Kjesbu, O. et al., "Synergies between Climate and Management for Atlantic Cod Fisheries at High Latitudes," *Proceedings of the National Academy of Sciences* 111.9 (2014): 3478–3483.
- Knudsen, S. and H. Toje, "Post-Soviet Transformations in Russian and Ukrainian Black Sea Fisheries: Socio-Economic Dynamics and Property Relations," *Southeast European and Black Sea Studies* 8, no. 1 (2008): 24–25. <https://doi.org/10.1080/14683850802012149>.
- Knudsen, S. "Marine Governance in the Black Sea," in *Governing Europe's Marine Environment*, eds. M. Gilek and K. Kern (Routledge, 2015).
- Manoli, P. *Reinvigorating Black Sea Cooperation: A Policy Discussion*. Policy Report III to the Commission on the Black Sea (Bertelsmann Stiftung, 2010). [https://www.files.ethz.ch/isn/115943/2010\\_PolicyReport-3.pdf](https://www.files.ethz.ch/isn/115943/2010_PolicyReport-3.pdf).
- Nilsen, T. "Russia Threatens to Withdraw from Fishery Deal with Norway. Little to Worry about, Says Expert," *Barents Observer*, October 27, 2023. <https://www.thebarentsobserver.com/industry-and-energy/russia-threatens-to-withdraw-from-fishery-deal-with-norway-little-to-worry-about-says-expert/141922>.
- North-East Atlantic Fisheries Convention, Jan. 4. 1959, 1285 UNTS 129.
- Oguz et al., "Current State of Overfishing and its Regional Differences in the Black Sea," *Ocean and Coastal Management* 58 (2012). <https://doi.org/10.1016/j.ocecoaman.2011.12.013>.
- O'Higgins, T. et al., "Achieving Good Environmental Status in the Black Sea: Scale Mismatches in Environmental Management," *Ecology and Society* 19, no. 3 (2014). <http://dx.doi.org/10.5751/ES-06707-190354>.
- Østhagen, A. et al., "The Svalbard Fisheries Protection Zone: How Russia and Norway Manage an Arctic Dispute," *Arctic and North* 40 (2020). [https://www.arcticandnorth.ru/upload/iblock/ece/150\\_168.pdf](https://www.arcticandnorth.ru/upload/iblock/ece/150_168.pdf).

- Özturk, B. "Some Remarks of Illegal, Unreported and Unregulated (IUU) Fishing in Turkish Part of the Black Sea," *Journal of the Black Sea/Mediterranean Environment* 19, no. 2 (2013): 256–267. <https://blackmeditjournal.org/wp-content/uploads/256-267-Vol19No2Bayram.pdf>.
- Pauly, D. et al., "Fishing down Marine Food Webs", *Science* 279, no. 5352 (1998): 860–863. <https://doi.org/10.1126/science.279.5352.860>.
- Rice, J. "Evolution of International Commitments for Fisheries Sustainability," *ICES Journal of Marine Science* 71, no. 2 (2014): 157–165. <https://doi.org/10.1093/icesjms/fst078>.
- Sea Around Us, "Catches by Taxon in the Black Sea," accessed December 12, 2023, <https://www.seaaroundus.org/data/#/meow/155?chart=catch-chart&dimension=taxon&measure=tonnage&limit=10>.
- Stiansen, J.E. et al., "Northern Seas – Climate and Biology", in *Marine Resources, Climate Change and International Management Regimes*, eds. O. Stokke, A. Østhagen and A. Raspotnik (Bloomsbury Academic, 2022). <https://library.oapen.org/handle/20.500.12657/58864>.
- Stokke, O. "Arctic Geopolitics, Climate Change, and Resilient Fisheries Management," *Ocean Yearbook* 36 (2022): 440–41; 445–49.
- Stokke, O. "Comparisons and Conclusions," in *Marine Resources, Climate Change and International Management Regimes*, eds. O. Stokke, A. Østhagen and A. Raspotnik (Bloomsbury Academic, 2022). <https://library.oapen.org/handle/20.500.12657/58864>.
- Stokke, O. "External Shocks, Resilience and Barents Sea Fisher Compliance," in *Marine Resources, Climate Change and International Management Regimes*, eds. O. Stokke, A. Østhagen and A. Raspotnik (Bloomsbury Academic, 2022). <https://library.oapen.org/handle/20.500.12657/58864>.
- Stribis, I. "Black Sea Fisheries: The Long Search for an Effective Forum for International Regulation," in *Maritime Safety and Environmental Protection in Europe. Multiple Layers in Regulation and Compliance*, eds. M. Ribeiro and E. Molenaar (Marsafenet, 2015), 127–172.
- Treaty between the Russian Federation and the Kingdom of Norway concerning maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean, Sept. 15, 2010, 2791 UNTS 3.
- Treaty concerning the Archipelago of Spitsbergen, Feb. 9, 1920, 2 LNTS 7.
- United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 UNTS 3.
- Vielmini, I. et al. "Untying the Mediterranean Gordian Knot: A Twenty First Century Challenge for Fisheries Management," *Frontiers in Marine Science* 4 (2017). <https://doi.org/10.3389/fmars.2017.00195>.
- Zimmermann, F. and K.M. Werner, "Improved Management is the Main Driver behind Recovery of Northeast Atlantic Fish Stocks," *Frontiers in Ecology and the Environment* 17, no. 2 (2019). <https://doi.org/10.1002/fee.2002>.